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10/030,346	10/19/2001	Xiaobao Chen	X. Chen 4	2164

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Lucent Technologies Inc
Docket Administrator RM 3C 512
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EXAMINER

BLENNAN, AVALON

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,346

Applicant(s)

CHEN, XIAOBAO

Examiner

Avalon Blenman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. 10/030,346.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is a second action in response to amendment and remarks filed April 28th, 2005. Claims 1-14 are presented for further consideration, of which 1 & 9 are independent claims. Claims 1, 7, & 11 have been amended. This office action is made **NON-FINAL**.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. EPO 99303041.0, filed on 04/20/1999. As such, the effective filing date for the subject matter defined in the pending claims is April 20th, 1999.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on October 19th, 2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **1-4, 8-10, 12, & 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Agraharam et al., hereinafter Agraharam (US 6,407,988), in view of Hulthen et al., hereinafter Hulthen (US 6,073,016).

6. In considering independent to claims **1 & 9**, Agraharam discloses a method and mobile IP environment (see fig. 2) of establishing an IP quality of service session (route optimization, col. 6, lines 21-33) between a correspondent node (fig. 2, #150, Correspondent Host, CH) and a mobile node (fig. 2, #100.1, Mobile Host, MH), the mobile node having a home address in a home network (fig. 2, #111.1) and being temporarily connectable in a foreign network (fig. 2, #111.2) having a foreign agent (fig. 2, #104.2, FA) associated with at least one further mobile node (fig. 1 #100.1 & 100.3), wherein IP packets are directed to the mobile node (MH) from the correspondent node (CH) via the home network, the quality of service session being maintained in dependence on flow identification information in the IP packets [col. 5, lines 27-44]. Agraharam further discloses:

- Allocating temporary flow identification information (temporary foreign address) for a quality of service (QoS) session to be configured [col. 7, line 13-15].

However, Agraharam is silent as to the steps of this allocation. Nonetheless, in related art, Hulthen discloses a method of establishing a session between a correspondent node and a mobile node (fig. 1, any "mobile unit"), the mobile node having a home address in a home network (home cell) and being temporarily

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connectable ("roaming") in a foreign network (another cell) having a foreign agent ("base station") associated with at least one further mobile node [col. 5, lines 20-22, 36-39]. Hulthen further discloses:

- means for determining whether the flow identification information ("mobile ID") of a session to be configured matches (currently available on table) the flow identification information of an existing session [fig. 5A, step 275, col. 10, lines 22-26].

Given the teachings of Hulthen, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Agraharam where responsive to a match, allocating temporary flow identification information. The motivation as suggested by Hulthen, would be to assign a unique identification flow information to each mobile host [col. 10, lines 42-47].

7. In considering claim 2, Agraharam discloses:

- the temporary flow identification information (CoA) is allocated between the home network and the foreign network [col. 4, lines 51-59].

[Examiner notes that Agraharam uses CoA and foreign address interchangeably (col. 7, 33-36)]

8. In considering claim 3, Agraharam discloses:

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- the step allocating temporary flow identification information (CoA) are carried out in the foreign network (by the foreign agent in the foreign network) [col. 4, lines 51-59].

As set forth above in reference to claim 1, Hulthen teaches the step of determining a match [col. 10, lines 22-26], which is carried out by the foreign agent (base station) in the foreign network (foreign cell) [col. 10, lines 22-26, col. 5, lines 58-61].

9. In considering claim 4, Agraharam discloses:

- the temporary flow identification information (CoA) is notified ("Registration & Address Update message) to the home network (to the home agent in the home network) by the foreign network (by the foreign agent in the foreign network) [col. 7, lines 26-31].

10. In considering claim 8, Agraharam discloses:

- the temporary flow identification information (CoA) is substituted in the home network (by the home agent in the home network, col. 7, lines 33-36) and replaced at the foreign agent [col. 7, lines 39-42].

11. In considering claim 10, Agraharam discloses:

- the means to determining is provided in the foreign network (by the foreign agent in the foreign network) [col. 4, lines 51-59].

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12. In considering claim **12**, Agraharam discloses:

- the means for allocating temporary flow identification information (CoA) is provided in the foreign network (by the foreign agent in the foreign network) [col. 4, lines 51-59].

13. In considering claim **11**, as set forth above in reference to claim 1, Hulthen discloses:

- the measure to determine whether the flow identification information ("mobile ID") of a session between one of the mobile nodes and a correspondent node matches the flow identification information of a session between one of the other mobile nodes and a correspondent node [fig. fig. 5A, step 275, col. 10, lines 22-26].

14. In considering claim **13**, Agraharam discloses

- the home network (home agent in the home network) includes means for substituting the temporary flow identification information (CoA) to the quality of service session responsive to the means ("Registration & Address Update message) for allocating the temporary flow identification information (CoA) in the foreign network (by the foreign agent in the foreign network) [col. 7, lines 26-36].

15. Claims **5, 6, & 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Agraharam in view of Hulthen as applied to claim 1 above, and further in view of Borella et al., hereinafter Borella (US 6,697,354).

16. In considering claims **5 & 6**, Agraharam in view of Hulthen do not explicitly teach that the temporary flow identification information is an identification of an application provided at the mobile node, nor that a port number identifies this application. Nonetheless, in related art, Borella discloses a method (col. 20, lines 29-38, 46-49) of establishing a session between a correspondent node (fig. 16, #232, correspondent) and a mobile node (fig. 16, #210), the mobile node having a home address in a home network (fig. 16, #212, "Home Subnet") and being temporarily correctable in a foreign network (fig. 16, #218, "Foreign Subnet") having a foreign agent (fig. 16, #216) supporting associated with at least one further mobile node (col. 19, lines 20-22), wherein IP packets are directed to the mobile node from the correspondent node via the home network.

[Examiner notes that Borella uses the terms mobile node/mobile 1st network device, home network/1st network, foreign agent/3rd network device, and foreign network/2nd external network interchangeably (see col. 4, lines 21-39)].

Borella further discloses that the flow identification information comprises an identification of an application (protocol) provided at the mobile node, wherein

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- the step of allocating temporary flow identification information (ephemeral globally unique port) comprises allocating a temporary identification of the application (protocol) [col. 15, lines 26-30, col. 7, line 1-13].
- the application (protocol) is identified by a port number (globally unique port/fig. 19, DNAT port 2001 of foreign subnet) [col. 15, lines 26-30, col. 7, line 1-13].

Given the teachings of Borella, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Agraharam where the temporary flow information could identify an application provided at the mobile node.

The motivation for doing so would be so that the application resident on the mobile node would indicate the protocol for which it will accept a connection on a specified port number. That way routing would be based exclusively on the given destination point of the mobile node (temporary CoA and protocol port).

17. In considering claim **14**, Agraharam does not explicitly disclose that the foreign agent removed the substituted flow identification information. Nonetheless, Borella discloses

- the foreign agent is adapted to remove the substituted flow identification information (located in the header) [col. 20, lines 34-41, 46-49]

Given the teachings of Borella, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Agraharam where the foreign agent would remove the substituted flow identification information.

The motivation for doing so would be so that unnecessary parameters are not stored or transmitted in the IP headers. It is not necessary the foreign agent to store the CoA or transmit it to the mobile node. The CoA of the mobile node will remain the same provided it remains in the same foreign network.

18. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Agraharam in view of Hulthen as applied to claim 1 above, in further view of Jain et al., hereinafter, Jain ("Mobile Internet Access and QoS Guarantees Using Mobile IP and RSVP with Location Registers).

19. In considering claim 7, Agraharam does not explicitly disclose that the quality of serviced session is a RSVP session. Nonetheless, in analogous art, Jain discloses a method of establishing a quality of service session between a correspondent node (CH, Correspondent Host) and a mobile node (MH, Mobile Host), the mobile node having a home address in a home network and being temporarily correctable in a foreign network having a foreign agent (fig. 2, FA, Foreign Agent), wherein IP packets are directed to the mobile node from the correspondent node via the home network (page 1690, col. 1, 3rd paragraph, 3rd sentence – col. 2, 1st paragraph). Jain further discloses:

- the quality of service session is an Resource Reservation Protocol (RSVP) session (page 1691, col. 1, 3rd paragraph, last sentence)

Given the teachings of Jain, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Agraharam where the QoS session between the correspondent node and the mobile node is a RSVP session.

The motivation for doing so would be to reduce the load on the foreign agent by avoiding encapsulation of the data packets and still allowing the same QoS to be maintained between all segments along the path between the correspondent node and the mobile mode.

Response to Amendment

20. Applicant's arguments, filed April 28th, 2005, with respect to the rejection(s) of claim(s) 1-4, 8-10, 12, & 13 under McCann have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hulthen.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avalon Blenman whose telephone number is (571) 272-5864. The examiner can normally be reached on Mon-Fri, 7:00 AM - 4:30 PM (even date Mons. off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB
07/21/2005


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